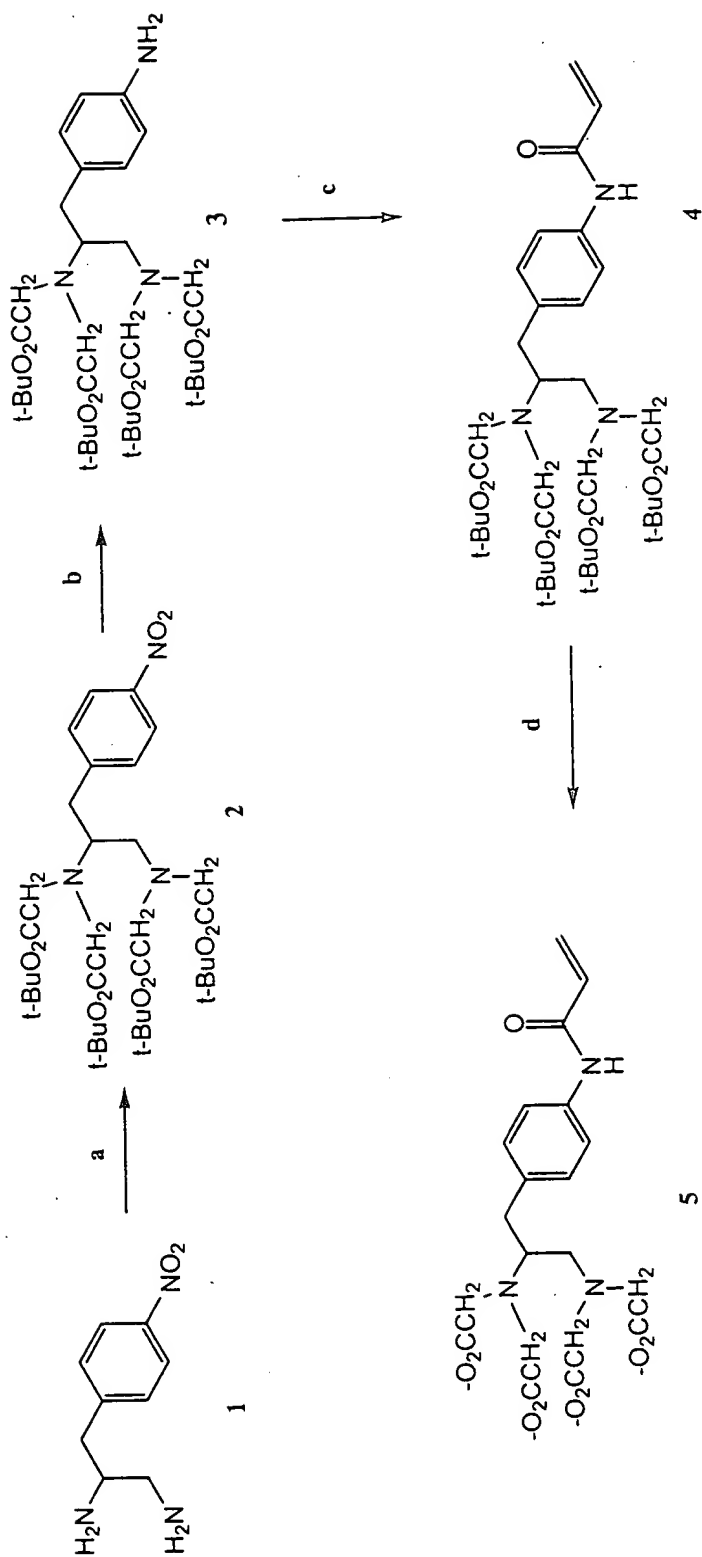


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 CTT CAC TGC GAC CAC CTC AGA GCG CCT CTG AGT CAC TTC GGA CCT CCG ACC GAC TTT CAG
 Gln Val Thr Leu Val Gln Ser Gln Gln Asp Ser Val Lys Pro Gln Gln Ser Leu Lys Leu
 FR1
 TCC TGT CCA GCG TCT GGA TTC ACT TTA AGT GGT CAA ACC ATG TCT TCG GTT CCG CAG ACT
 ACG ACA CGT CCG AGA CCT AAG TCA AAT TCA CCA CTT TCG TAC ACA ACC CAA GCG CTC TCA
 Ser Cys Ala Ala Ser Gln Phe Thr Leu Ser Gln Gln Thr Met Ser Trp Val Arg Gln Thr
 COR1
 CCG GAC AAG ACC CTG GAC TCG GTC GCA ACC ACT CTT AGT GGT GGT GGT TTC ACC TTC TAT
 GCG CTC TTC TCC GAC CTC ACC CAG CGT TGG TGA GAA TCA CCA CCA GCG Gln Phe Thr Phe Tyr
 Pro Gln Lys Arg Leu Gln Trp Val Ala Thr Thr Leu Ser Gln Gln Gln Phe Thr Phe Tyr
 COR2
 TCA GCG AGT GTG AAG CGT CGT TTC ACC ATC TCC AGA GAC AAT GCG CAG AAC AAC CTC TAT
 AGT CCG TCA CAC TTC CCA GCA AAG TGG TAG ACG TCT CTG TTA CCG GTC TTC TTC GAG ATA
 Ser Ala Ser Val Lys Gln Arg Phe Thr Met Ser Arg Asp Asn Ala Gln Asn Asn Leu Tyr
 FR3
 CTA CAA CTG AAT AAT CTG ACC TCT CAG GAC ACC GCG TTG TAT TTC TGT CCA AGT CAT CCG
 GAT GTT CAC TTA TCA GAC TCC AGA CTC CTG TCG CCG AAC ATA AAG ACA CGT TCA GTA GCG
 Leu Gln Leu Asn Ser Leu Arg Ser Gln Asp Thr Ala Leu Tyr Phe Cys Ala Ser Met Arg
 COR3
 TTT GTT CAC TCG GCG CAC GCG ACT CTG GTC ACT GTC TCT GCA GCG AAA ACC ACA CCG CCA
 AAA CAA GTG ACC CCG GTG CCG TCA GAC CAG TGA CAG ACA CGT CCG TTT TCG TGT CCG CGT
 Phe Val Met Trp Gln His Gln Thr Leu Val Thr Val Ser Ala Ala Lys Thr Thr Pro Pro
 FR4
 CH1

Fig. 2

CTGACCTC
 GGT GTT GTC ACT CAG GAA TTT
 GGT GTT GTC ACT CAG GAA TTT GCA CTC ACC ACA TCA CCT GGT GAA ACA GTC ACA CTC ACT
 CGA CAA CAC TCA CTC CTT AGA GGT CAG TCG TGT AGT CGA CCA CTT TGT CAG TGT GAG TCA
 Ala Val Val Thr Gln Gln Ser Ala Leu Thr Thr Ser Pro Gly Gln Thr Val Thr Leu Thr
 FR1
 TGT CCG TCA AGT ATT CCG CCT GTT ACA ACT AGT AAC TAT CCG AAC TCG CTC CAA GAA AAA
 ACA CCG AGT TCA TAA CCG CGA CAA TGT TCA TCA TTG ATA CCG TTG ACC CAG GTT CTT TTT
 Cys Arg Ser Ser Ile Gln Ala Val Thr Thr Ser Asn Tyr Ala Asn Trp Val Gln Gln Lys
 FR2
 COR1
 CCA CAT CAT TTA TTC ACT GGT CTA ATA GGT GGT ACC AAT AAC CCG GGT CCG GGT GTT CCT
 GGT CTA GTA AAT AAG TCA CCA CAT TAT CCA CCA TCG TTA TTG CCG CCA GCG CCA CAA CCA
 Pro Asp His Leu Phe Thr Gln Leu Asn Gly Gly Thr Asn Asn Arg Ala Pro Gly Val Pro
 COR2
 CCG ACA TTC TCA CCG TCG CTC ATT CCA CAC AAG GGT CCG CTC ACC ATC ACA CCG CCA CAG
 CCG TGT AAG AGT CCG ACC CAC TAA CTT CTC TTC CCA CCG CAG TCG TAC TGT CCG GGT GTC
 Ala Arg Phe Ser Gln Ser Leu Asn Gln Asp Lys Ala Ala Leu Thr Ile Thr Gln Ala Gln
 ACT CAA CAT CAG CCA ACA TAT TTC TGT GGT CTA TCG TAC TGC AAC CTC TCG GTC TTC GGT
 TCA CTT CTA CTC GGT TGT ATA AAG ACA CCA CAT ACC ATG ACC TTG CAG ACC CAC AAG CCA
 Thr Gln Asp Gln Ala Arg Tyr Phe Cys Ala Leu Trp Tyr Cys Asn Leu Trp Val Phe Gln
 COR3
 FRA
 GGA GGA ACC AAA CTC ACT GTC CTA ACC CAG CCG AAG TGT TCG CCA TCA GTC ACC CTC TTT
 CCT CCG TCG TTT CAG TCA CAG CAT TCG GTC CCG TTC AAG ACC GGT AGT CAG TCG CAC AAA
 Gln Gly Thr Lys Leu Thr Val Leu Ser Gln Pro Lys Ser Ser Pro Ser Val Thr Leu Phe
 TTT CAC TCA CAG CAT TTT
 COR4
 CCAACCTC
 CCG CCG TCG TGT GAA GAG CTA ACC TTC GGA ATC GGA TTC CCG CG
 CCG CCG AAG ACA CTT CTC CAT TCG AAC CCT TAC CCT AAG CCG CC
 Pro Pro Ser Ser Gln Gln Leu Ser Leu Gln Ile Gln Phe Pro Gln

Fig. 3



a. $\text{BrCH}_2\text{CO}_2\text{t-Bu}$, DIPEA, KI, DMF; b. H_2 , Pd/C, MeOH; c. acryloyl chloride, DIPEA, CH_2Cl_2 ; d. TFA.

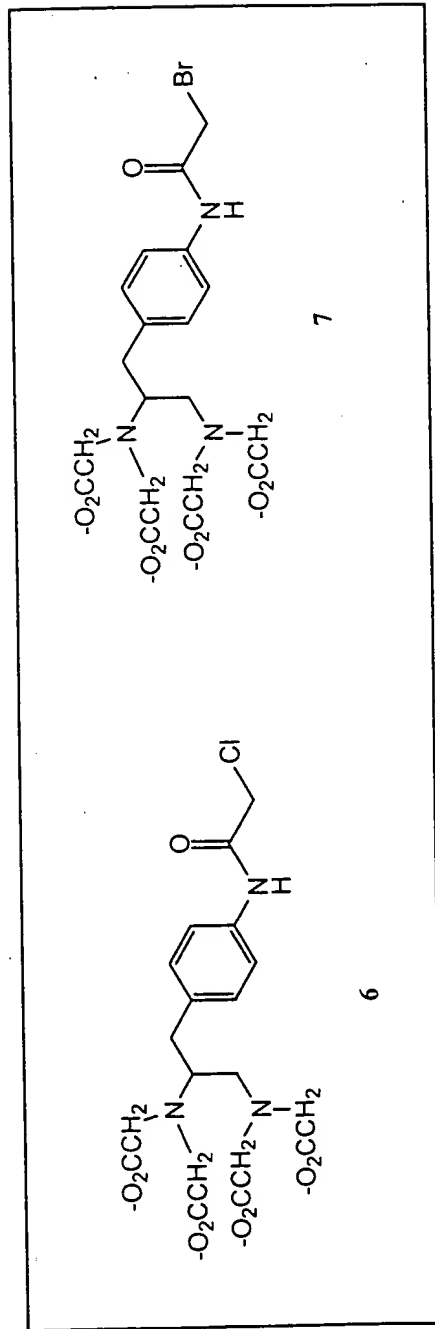


Fig. 5

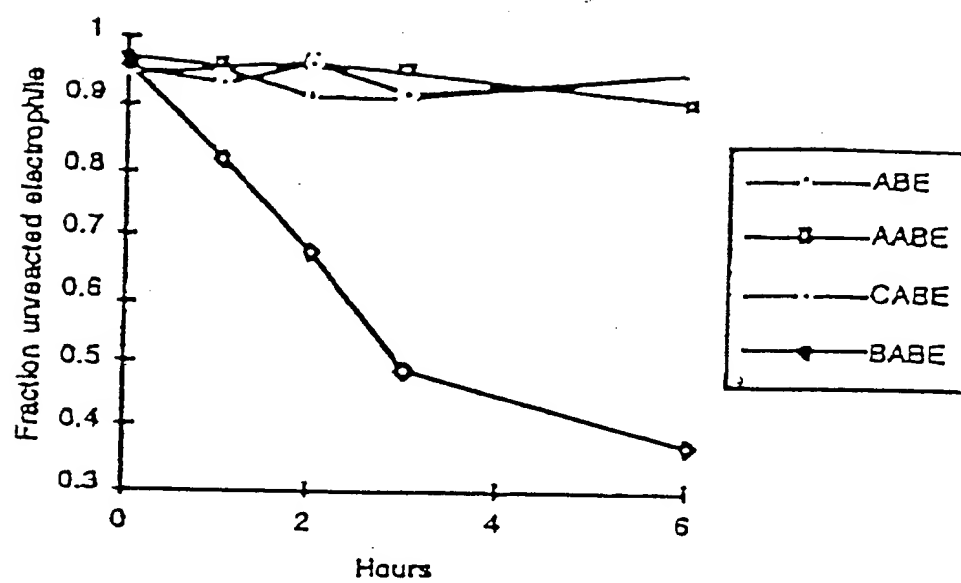


Fig. 6

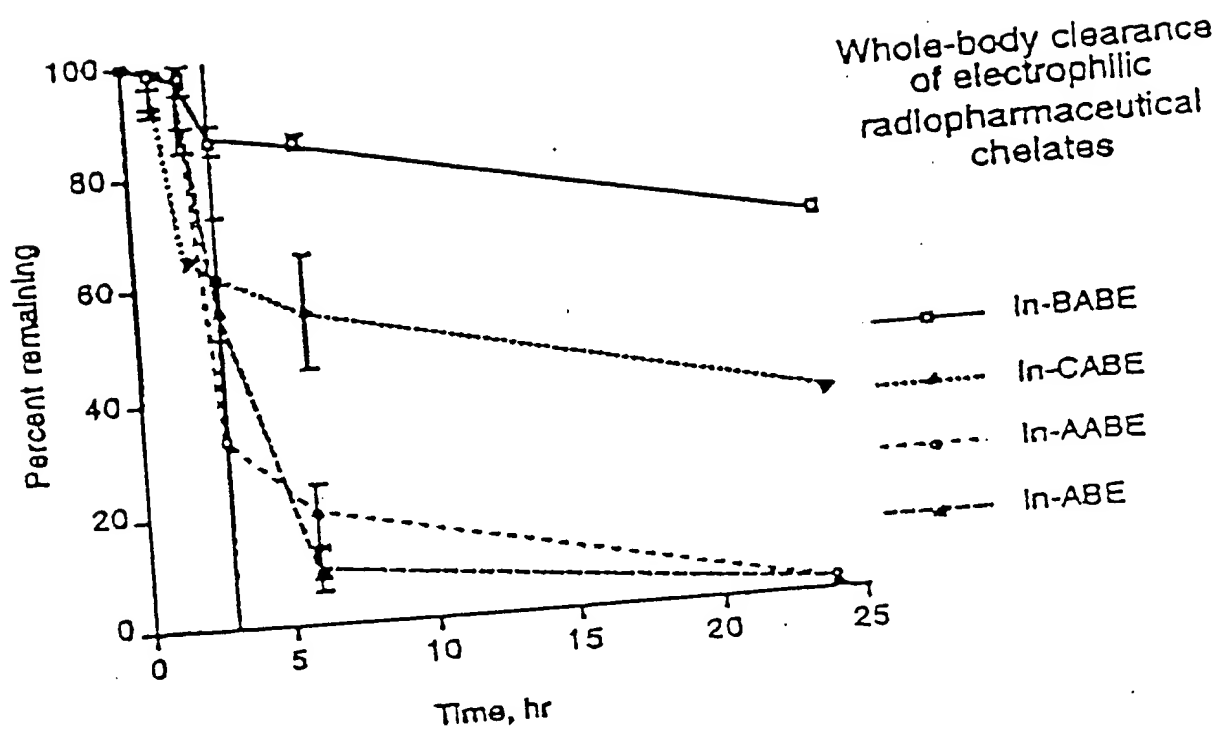


Fig. 7

004260" ES6T 2960

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GTGGTTTCACCTTCTATTCAGCCAGTGTGAAGGGTCGTTTCACCATCTCCAGAGACA
ATGCCCAGAACAACCTCTATCTACAACCTGAATAGTCTGAGGTCTGAGGACACGGCCT
TGTATTTCTGTGCAAGTCATCGGTTTGTTCAGTGGGGCCACGGGACTCTGGTCACTGT
CTCTGCAGCCAAAACGACGGGCCCATCGGTCTTCCCCCTGGCACCCCTCCTCCAAGAG
CACCTCTGGGGGCACAGCGGCCCTGGGCTGCCTGGTCAAGGACTACTTCCCCGAACC
GGTGACGGTGTCTGTGAACTCAGGCGCCCTGACCAGCGGCGTGCACACCTTCCCGG
CTGTCCTACAGTCCTCAAGACTCTACTTCCTCAGCAGCGTGGTGACCGTGCCCTTCA
ACAGCTTGGGCACCCAGACCTACATCTGCAACGTGAATCACAAGCCCAGCAACACC
AAGGTGGACAAGAAAGCAGAGCCCAAATCTTGTGACAAATCTAGAGGGGCCCTTCGA
AGGTAAGCCTATCCCTAACCCTCTCCTCGGTCTCGATTCTACGCGTACCGGTCATCAT
CACCATCACCATTGA

Fig. 8

004260" 5574960

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GCTCCGGGTGTTCTGCCAGATTCTCAGGCTCCCTGATTGGAGACAAGGCTGCCCTC
ACCATCACAGGGGCACAGACTGAAGATGAGGCAAGATATTTCTGTGCTCTATGGTA
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GGCTGCACCATCTGTCTTCATCTTCCCGCCATCTGATGAGCAGTTGAAATCTGGAAC
TGCCTCTGTTGTGTGCTGCTGAATAACTTCTATCCCAGAGAGGCCAAAGTACAGTG
GAAGGTGGATAACGCCCTCCAATCGGGTAACTCCCAGGAGAGTGTACAGAGCAGG
ACAGCAAGGACAGCACCTACAGCCTCAGCAGCACCTGACGCTGAGCAAAGCAGAC
TACGAGAAACACAAAGTCTACGCCTGCGAAGTCACCCATCAGGGCCTGAGYTYGCC
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Fig. 9

004260" 05672960

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TGGCTGCACCATCTGTCTTCATCTTCCCGCCATCTGATGAGCAGTTGAAATCTGGAA
CTGCCTCTGTTGTGTGCCTGCTGAATAACTTCTATCCCAGAGAGGCCAAAGTACAGT
GGAAGGTGGATAACGCCCTCCAATCGGGTAACTCCCAGGAGAGTGTACAGAGCAG
GACAGCAAGGACAGCACCTACAGCCTCAGCAGCACCTGACGCTGAGCAAAGCAGA
CTACGAGAAACACAAAGTCTACGCCTGCGAAGTCACCCATCAGGGCCTGAGYTYGC
CCGTCACAAAGAGCTTCAACAGGGGAGAGTGTTAA

Fig. 10

AGATCTGCTGTTGTGACTCAGGAATCTGCACTCACCACATCACCTGGTGAAACAGTC
ACACTCACTTGTCGCTCAAGTATTGGGGCTGTTACAACACTAGTAACTATGCCAACTGG
GTCCAAGAAAAACCAGATCATTTATTCACTGGTCTAATAGGTGGTACCAATAACCGG
GCTCCGGGTGTTCTGCCAGATTCTCAGGCTCCCTGATTGGAGACAAGGCTGCCCTC
ACCATCACAGGGGCACAGACTGAAGATGAGGCAAGATATTTCTGTGCTCTATGGTA
CTGCAACCTCTGGGTRTTCGGTGGAGGAACCAAACACTGACTGTCCTAAGCCGWACKG
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CTGCCTCTGTTGTGTGCCTGCTGAATAACTTCTATCCCAGAGAGGCCAAAGTACAGT
GGAAGGTGGATAACGCCCTCCAATCGGGTAACTCCCAGGAGAGTGTCACAGAGCAG
GACAGCAAGGACAGCACCTACAGCCTCAGCAGCACCCCTGACGCTGAGCAAAGCAGA
CTACGAGAAACACAAAGTCTACGCCTGCGAAGTCACCCATCAGGGCCTGAGYTYGC
CCGTCACAAAGAGCTTCAACAGGGGAGAGTGTTAA

002260-5572960

Fig. 11

RSVVVTQESALTTSPGETVTLTCRSSIGAVTTSNYANWVQEKPDHLFTGLIGGTNNRAPG
VPAFSGSLIGDKAALTITGAQTEDEARYFCALWYSNLWVFGGGTKLTVLSRTVAAPSV
FIFPPSDEQLKSGTASVVCLLNNFYPREAKVQWKVDNALQSGNSQESVTEQDSKDSTYS
LSSTLTLSKADYEKHKVYACEVTHQGLSXPVTKSFNRGEC

004260" 556T2960

Fig. 13

RSVVTQESALTTSPGETVTLTCRSSIGAVTTSNYANWVQEKPDHLFTGLIGGTNNRAPG
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FIFPPSDEQLKSGTASVVCLLNNFYPREAKVQWKVDNALQSGNSQESVTEQDSKDSTYS
LSSTLTLSKADYEEKHKVYACEVTHQGLSXPVTKSFNRGEC

004260" 055T 2960

Fig. 14

Elisa of Chimeric CHA Fabs

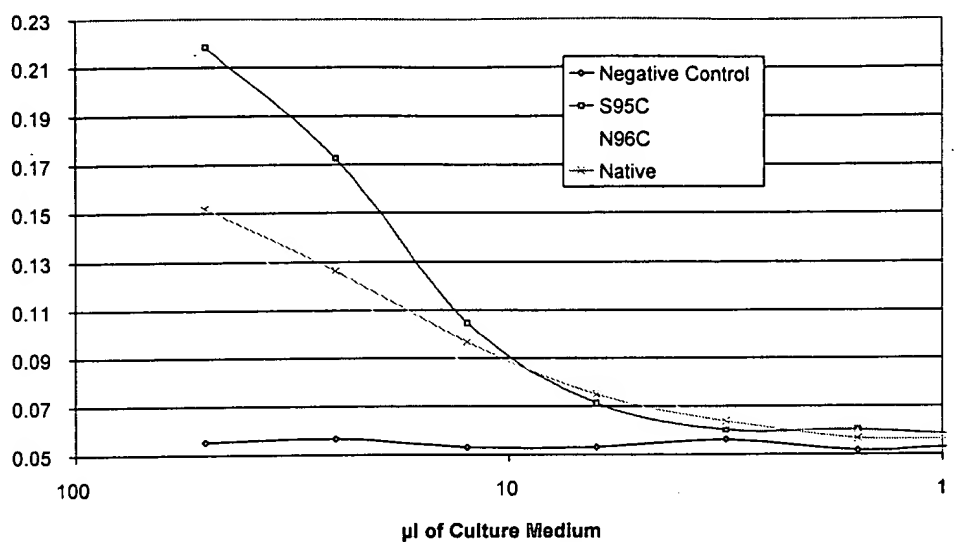


Fig. 16

Fig. 17

Fig. 18